

Internet over a Bi-Directional Satellite Link

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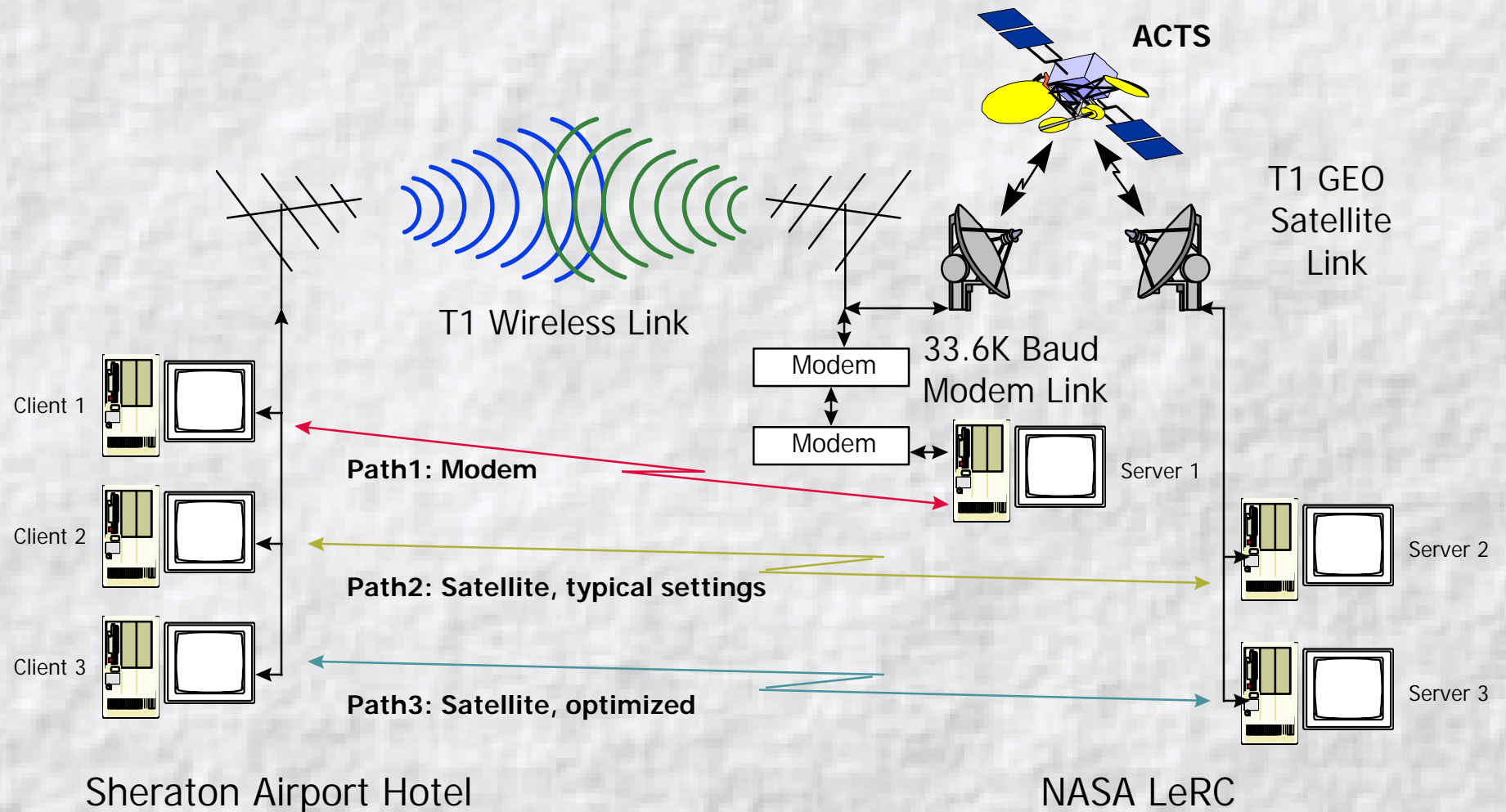
Internet over a Bi-Directional Satellite Link

- Comparison of HTTP over several network channels
 - 33.6k modem connection
 - Satellite connection, standard TCP stack and typical application settings
 - Satellite connection, optimized for satellite networks
 - larger window sizes
 - larger initial congestion window
 - TCP bug fixes
 - new versions of the HTTP protocol
- By using appropriately tuned applications and TCP settings, we demonstrate improved performance of HTTP when compared to today's off-the-shelf software

Optimizations are based upon findings from experiments conducted between satellite research networks at NASA Lewis Research Center and Ohio University.

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Demonstration Setup



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- HTTP Comparison Pages
 - 20 pages gathered from several Ohio related sites
 - Pages with varying attributes
 - Number of images from 1 to 27
 - Image sizes from 177 bytes to 360 kilobytes
- Demonstration setup in Dulles
 - Three computers, one for each of the network channels
 - Pages are synchronized to start at the same time
 - The computers will pause for one minute, before moving on to the next page
 - The 20 pages will repeat continuously, for the duration of the workshop